AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. - 71. (Cancelled)

72. (New) A method for creating structures in an electrically conductive surface of a substrate, comprising:

defining a pattern by using a master electrode, the master electrode comprising an electrically conductive surface and an insulating pattern layer, the electrically conductive surface of the master electrode being of a first material, by:

bringing the master electrode in close contact with the electrically conductive surface of the substrate such that at least one cavity in the master electrode is defined by the electrically conductive surface of the substrate, the electrically conductive surface of the master electrode, and the insulating pattern layer of the master electrode; and

patterning the substrate by an electrochemical transfer process, wherein material is dissolved at an anode and deposited at a cathode, and an electrolyte solution is used as a transport medium, wherein:

(a) the electrically conductive surface of the master electrode is the anode, the electrically conductive surface of the substrate is the cathode, or

(b) the electrically conductive surface of the substrate is the anode and the electrically conductive surface of the master electrode is the cathode, and

(c) the dissolved material is an anode material, which is pre-deposited in the at least one cavity defined in the master electrode,

wherein the first material is less dissolvable than the anode material in the electrolyte solution.

73. (New) The method according to claim 72, wherein the first material is chemically inert in the electrolyte solution used.

74. (New) The method according to claim 72, further including connecting an external plating voltage in such way that the substrate becomes the cathode and the master electrode becomes the anode in local electrochemical plating cells, the plating cells being defined by the at least one cavity in the master electrode, in which cavity the anode material has been pre-deposited.

75. (New) The method according to claim 73, further including connecting an external plating voltage in such way that the substrate becomes the cathode and the master electrode becomes the anode in local electrochemical plating cells, the plating cells being defined by the at least one cavity in the master electrode, in which cavity the anode material has been pre-deposited.

76. (New) The method according to claim 72, wherein the pre-deposited anode material has been built up in the cavity in the master electrode with electrochemical deposition, using an electrochemical cell, the electrochemical cell being defined by the cavity in the master electrode.

77. (New) The method according to claim 72, further including applying an external etching voltage in such way that the substrate becomes the anode and the master electrode becomes the cathode in the local electrochemical etching cell, the cell being defined by the cavity in the master electrode.

78. (New) The method according to claim 73, further including applying an external etching voltage in such way that the substrate becomes the anode and the master electrode becomes the cathode in the local electrochemical etching cell, the cell being defined by the cavity in the master electrode.

79. (New) The method according to claim 72, wherein the material deposited in the cavity in the master electrode is removed in a subsequent cleaning process.

80. (New) The method according to claim 79, wherein the cleaning process includes electrochemical etching of the material deposited in the cavity in the master electrode using either a conventional electrochemical etching cell or local electro chemical cell, the cell being defined by the cavity in the master electrode.

81. (New) The method according to claim 72, wherein the electrically conductive surface of the substrate comprises a metal.

82. (New) The method according to claim 81, wherein the metal is chosen from the group consisting of copper, gold, nickel, tin, titanium, aluminum, chrome, and alloys thereof.

83. (New) The method according to claim 72, wherein the electrically conductive surface of the substrate is a semiconductor.

84. (New) The method according to claim 72, wherein the electrically conductive surface of the substrate is a conductive polymer.

85. (New) The method according to claim 72, further including using pulsed voltage applied between the master electrode and the substrate.

86. (New) The method according to claim 85, wherein a frequency of the pulsed voltage is in the range of about 2 to 20 kHz.

87. (New) The method according to claim 85, wherein a frequency of the pulsed voltage is about 5 kHz.

88. (New) The method according to claim 85, wherein the pulsed voltage is a periodic pulse reverse voltage.

89. (New) The method according to claim 85, wherein the pulsed voltage has complex waveforms.

90. (New) The method according to claim 72, wherein at least one of a concentration of electro-active ions of 10 to 1200 mM in the electrolyte solution and a sequestering agent is used.

91. (New) The method according to claim 90, wherein the sequestering agent is EDTA.

92. (New) The method according to claim 72, wherein an additive system is used in the electrolyte solution, the additive system comprising at least one of wetting agents, accelerators, suppressors, and levelers.

93. (New) The method according to claim 72, wherein the electrolyte solution has little or no supporting electrolyte and at least one of a high concentration of electro-active species and no chemical oxidation agent.

94. (New) The method according to claim 72, wherein counter ions in the electrolyte solution are exchanged to ones which provide higher solubility.

95. (New) The method according to claim 72, wherein the electrolyte solution comprises acid copper and the electrolyte has a pH value between 2 and 5.

96. (New) The method according to claim 93, wherein the electrolyte solution is an optimized electrolyte in a local etching cell or a local plating cell.